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AI, the Brain, and Recovery: The Whisper Network Concept

My Work in Recovery Research

As part of my work in recovery education and addiction-related research, I began exploring a question that connects neuroscience, psychology, technology, and the practical experience of recovery:

If addiction can change the way the brain learns, thinks, reacts, and responds to cravings, could artificial intelligence eventually become a tool that helps a person recognize and interrupt those patterns?

This idea developed into what I call the Whisper Network—a conceptual model in which artificial intelligence could function as an additional source of real-time support during recovery. The idea is not that AI would replace counselors, sponsors, therapists, doctors, treatment programs, or AA/NA. Instead, AI could potentially work alongside those systems as an educational and supportive tool.

The Brain Learns Patterns

One of the foundations of this research is neuroplasticity—the brain's ability to change in response to experience, learning, repetition, and environment.

Addiction can involve the development of powerful learned associations between substances, emotions, places, people, memories, stress, and reward. Recovery therefore involves more than simply telling someone to stop a behavior. It can involve learning new responses and developing healthier patterns.

Current research supports the idea that neuroplasticity plays a role in both addiction and recovery. Changes involving reward, stress, emotional regulation, learning, and executive control can occur during substance use, while recovery and evidence-based interventions can support adaptive changes.

This led me to ask:

If the brain can learn a harmful pattern, can it also learn a healthier pattern—and could technology help reinforce that learning?

The Whisper Network

My concept of the Whisper Network describes a possible AI-based support system that could provide a person with a timely reminder, question, lesson, or grounding prompt when they are experiencing a difficult thought, emotional state, craving, or behavioral pattern.

The "whisper" is not intended to mean an actual voice inside someone's head. It represents a quiet intervention—a moment of information or reflection that gives a person an opportunity to pause before automatically acting.

For example:

Trigger → Thought → Emotion → Urge → Decision → Behavior

The goal would be to create another opportunity:

Trigger → Thought → Emotion → AI-supported pause → Reflection → Choice

The important part of the model is the pause.

AI as a Teacher, Not a Replacement

In my research, I considered AI as potentially functioning more like a teacher or recovery assistant than a replacement for human relationships.

An AI system could ask questions such as:

- What are you feeling right now?
- What happened immediately before this thought?
- Is this a familiar pattern?
- What has happened when you followed this thought before?
- What choice would support the person you want to become?
- Do you need to contact a person in your recovery support system?

This connects AI with concepts already used in recovery education, cognitive-behavioral approaches, emotional regulation, and habit change.

Research on cognitive rehabilitation in substance-use disorders similarly recognizes approaches such as cognitive remediation, emotion-regulation training, cognitive-bias modification, and contingency management as ways of addressing cognitive and behavioral difficulties while complementing existing treatment rather than replacing it.

Could AI Interrupt a Craving?

One of the questions in my handwritten research was whether AI could recognize when a person is beginning to repeat a harmful behavioral pattern and intervene before the behavior occurs.

This is an important distinction.

I am not claiming that current AI can reliably read a person's mind or automatically stop addiction. Rather, I am proposing a research question:

Could an AI system learn enough about a person's reported thoughts, triggers, habits, language, routines, or other voluntarily provided information to recognize warning patterns and provide an appropriate intervention?

Recent research is beginning to investigate AI and large-language-model applications in substance-use disorders, including personalized support, monitoring, relapse prevention, and interpretation of narrative information. At the same time, researchers emphasize significant limitations involving accuracy, privacy, bias, safety, and the need for human oversight.

That makes this an emerging area of research rather than an established cure.

AI and Emotional Intelligence

Another question from my research is whether AI could help develop emotional intelligence.

Emotional intelligence in recovery can involve learning to identify:

- anger;
- fear;
- shame;
- loneliness;
- frustration;
- impulsivity;
- anxiety;
- craving;
- disappointment; and
- other emotional states that may influence behavior.

The purpose would not be to eliminate emotions.

One of the questions I wrote down was:

"Would AI end emotions?"

My conclusion is that recovery should not be understood as eliminating emotion. A healthier goal is learning to recognize emotions and respond to them differently.

AI could potentially help someone put words to an emotional experience, identify patterns, consider consequences, and practice alternative responses. In that sense, AI could become an educational mirror rather than an emotional replacement.

The Connection to AA and NA

Another major question in my notes was:

Could AI work alongside AA or NA?

My research framework treats peer recovery communities as something AI should complement rather than replace.

Human relationships provide things technology cannot fully reproduce: lived experience, accountability, empathy, community, trust, and personal connection.

An AI system could potentially help someone prepare for a meeting, reflect on something discussed at a meeting, organize questions, practice coping strategies, or remember recovery principles. It could also encourage a person to reach out to an actual human being when human support is needed.

Therefore, the model is:

AI + Human Support + Recovery Education

rather than:

AI instead of Human Support.

The Larger Idea: Smart Recovery Support

The notes I developed describe this as a possible form of Smart Recovery Support.

The idea is that future technology might eventually help identify patterns earlier and provide individualized educational interventions.

For example:

A person experiences a trigger.

↓

The person notices a familiar thought.

↓

The system recognizes that the thought resembles a previously identified pattern.

↓

The system asks the person to pause and examine the thought.

↓

The person considers another response.

↓

The person makes a conscious decision.

↓

The experience becomes another opportunity for learning.

This is where my research connects AI with neuroplasticity.

The objective would not be to make a machine control the person's mind.

The objective would be to create more opportunities for the person to practice a healthier response.

"Can Thought Become Habit?"

One of the questions from my research asks whether a thought can become a habit.

This is an important recovery question because repeated thoughts and behaviors can become strongly associated with particular situations. The brain's plasticity allows learning to occur, including learning that can be harmful or beneficial.

Therefore, a recovery-oriented approach can ask:

What happens when a person repeatedly practices a different response?

The answer is not that one conversation with AI will "rewire" addiction.

Neuroplastic change is complex and occurs across biological, psychological,

behavioral, and environmental levels. Current research describes addiction-related plasticity across multiple brain systems and emphasizes that recovery is also a complex process.

AI as a Possible Recovery Assistant

My handwritten research also asks:

"Would AI work as a rehab?"

I would refine this question to:

Could AI become part of a rehabilitation environment?

That distinction is important.

AI could potentially assist with education, reflection, journaling, cognitive exercises, emotional-awareness exercises, recovery planning, and pattern recognition. But it should not independently diagnose addiction, replace professional treatment, or make high-stakes medical decisions.

Current research on AI in substance-use disorders describes promising possibilities but also emphasizes that the evidence is still developing and that safe implementation requires validation, privacy protections, bias mitigation, and human oversight.

My Recovery Research Question

The larger question behind my work can therefore be stated as:

«If the brain can learn addiction-related patterns through neuroplasticity, can carefully designed technology help people recognize those patterns, interrupt them, practice healthier responses, and strengthen recovery?»

This is the central research question behind my AI and Recovery / Whisper Network concept.

I see this as an extension of my broader work in recovery education: taking ideas about addiction, behavior, thought patterns, emotional intelligence, neuroplasticity, and recovery and asking how they might be understood in a practical and educational framework.

Important Limitation

The Whisper Network is my conceptual research framework, not a proven treatment or established medical technology. The idea that AI could interrupt cravings, identify thoughts in real time, or function as a "recovery implant" remains speculative and requires controlled research.

The strongest evidence currently supports the underlying principles: addiction involves learning and neuroplastic changes; recovery can involve adaptive brain and behavioral changes; and emerging AI systems may eventually provide additional forms of personalized support.

My contribution is the attempt to bring these ideas together into a recovery-oriented framework:

Addiction → Brain → Learning → Neuroplasticity → Pattern Recognition → AI Support → Pause → Choice → New Learning → Recovery

That is the foundation of my AI, Brain, and Recovery research and the development of my Whisper Network concept.

All groups made by Marcel Ray Duriez on all Medium blog posts

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Marcel Ray Duriez — Recovery Group Work and Educational Framework

An Overview of My Recovery-Based Group Work

My work in recovery education has focused on creating meaningful, practical, and thought-provoking group discussions for people affected by addiction, substance use, emotional difficulties, trauma, behavioral patterns, and the challenges of maintaining long-term recovery.

Rather than relying entirely on repetitive recovery discussions, I have worked on developing groups that encourage people to think, question, reflect, communicate, and understand themselves differently.

My approach combines recovery principles with ideas from psychology, neuroscience, philosophy, literature, creativity, education, and everyday life.

The goal is not simply to tell someone what they should do. The goal is to help people understand why they think, feel, react, and behave the way they do—and how those patterns can change.

1. The Rooms We Carry

The Rooms We Carry explores the idea that people carry experiences, memories, relationships, trauma, guilt, shame, anger, loss, and addiction history with them long after they leave a particular environment.

The group asks:

- What experiences are we still carrying?
- Which memories continue to influence our behavior?
- What emotional "rooms" do we return to?
- What are we ready to leave behind?
- What parts of our past can teach us without controlling us?

The group turns recovery into a discussion about identity, memory, emotional baggage, and personal growth.

2. Emotional Static

Emotional Static examines the mental noise that can interfere with recovery.

People may experience anger, anxiety, resentment, fear, shame, cravings, overthinking, impulsivity, or emotional reactions that make it difficult to think clearly.

The group teaches participants to recognize the difference between:

Feeling something and acting on something.

The central question becomes:

«Can I experience an emotion without allowing that emotion to make my decisions for me?»

This creates an opportunity to discuss emotional regulation, self-control, communication, and the importance of pausing before reacting.

3. Traumatic Intelligence

Traumatic Intelligence explores how difficult experiences can influence the way people interpret the world.

The group does not define people by what happened to them. Instead, it asks how people can develop an understanding of their experiences and use that understanding to make better decisions.

Discussion can include:

- survival responses
- fear
- anger
- hypervigilance
- emotional triggers
- learned behaviors
- trust
- relationships
- resilience
- personal meaning

The purpose is to move from simply asking "What happened to me?" toward asking "What can I learn about myself from what happened?"

4. A New Understanding of Grief

This group examines grief beyond death alone.

Recovery can involve grieving:

- people
- relationships
- childhood
- identity
- opportunities
- substances
- lifestyles
- friendships
- familiar environments
- former versions of oneself

The group also connects grief with the brain, including emotional responses and the role of systems such as the amygdala.

A major recovery question is:

How do we learn to live with a loss without allowing the loss to destroy the rest of our lives?

5. Neuroplasticity and Recovery

One of the major themes in my work has been neuroplasticity—the brain's ability to change through experience, learning, repetition, and behavior.

This creates a powerful recovery message:

The brain can learn patterns, but it can also learn new patterns.

The group can explore:

- addiction and learned behavior
- cravings
- habit formation
- repetition
- environmental influences
- new experiences
- cognitive change
- behavioral change
- healthy routines
- learning
- rebuilding identity

Instead of presenting addiction as something that makes change impossible, the discussion emphasizes that meaningful behavioral change involves repeatedly practicing new responses.

6. AI, the Brain, and Recovery

I have also explored the question of whether artificial intelligence could eventually contribute to understanding or treating addiction.

This group combines technology, neuroscience, psychology, and recovery.

Questions include:

- Could AI help people recognize patterns in their thinking?
- Could technology help identify triggers?
- Could AI assist counselors?
- Could personalized education improve recovery?
- Could technology help people practice healthier responses?
- What are the limits of AI?
- Can technology support recovery without replacing human connection?

The deeper question is not simply whether AI can "cure" addiction.

It is:

How might technology help humans better understand a disease involving the brain, behavior, learning, environment, and decision-making?

7. CBT and Recovery

Cognitive Behavioral Therapy provides another major foundation for my groups.

CBT encourages participants to examine the relationship between:

Thoughts → Feelings → Behaviors → Consequences



Participants can learn to recognize automatic thoughts and question whether those thoughts are accurate, helpful, or destructive.

Recovery examples include:

- "I already messed up, so it doesn't matter."
- "Nobody understands me."
- "I can't change."
- "Everyone is against me."
- "One time won't hurt."
- "This is just who I am."

The group challenges participants to examine whether these statements are facts or patterns of thinking.

8. Respect, Restraint, and Real Growth

This group focuses on the idea that recovery is not only about avoiding substances.

It is also about learning how to behave differently.

Major lessons include:

Respect Over Reaction

Not every emotion needs to become an argument.

Restraint

Strength can sometimes mean choosing not to react.

Responsibility

People become stronger when they stop blaming everyone else for every consequence.

Growth

Recovery requires continued learning rather than simply counting time.

Character

How a person behaves when they are angry, frustrated, or disappointed can reveal their progress.

9. Hospitality

The hospitality group examines how people treat others.

Recovery communities depend upon people feeling welcomed, respected, and safe enough to participate.

The group explores:

- kindness
- inclusion
- patience
- welcoming newcomers
- listening
- helping others
- respecting differences

Hospitality becomes more than customer service. It becomes a recovery principle:

How we make other people feel matters.

10. Responsibility

The responsibility group focuses on moving from explanation to ownership.

Participants can examine:

- choices
- consequences
- accountability
- commitments
- reliability
- honesty
- repairing damage
- personal responsibility

The goal is not shame.

The goal is understanding:

I may not control everything that happened to me, but I can become responsible for what I do next.

11. Open-Mindedness

Open-mindedness is particularly important in recovery because change requires the willingness to consider something different.

The group explores:

- challenging old beliefs
- listening to other perspectives
- learning from mistakes
- accepting constructive criticism

- questioning assumptions
- considering new approaches

Open-mindedness does not mean believing everything.

It means being willing to investigate before automatically rejecting something.

12. Conviction

The conviction group examines what happens when people actually believe in the principles they claim to follow.

Questions include:

- What do I stand for?
- What values guide my decisions?
- What happens when my values are tested?
- Do I maintain my principles when nobody is watching?
- Can conviction help protect recovery?

This turns recovery into a discussion about character and personal integrity.

13. Dignity

The dignity group focuses on self-respect and the way people treat others.

Addiction can damage a person's sense of worth.

Recovery can involve rebuilding:

- self-respect
- confidence
- boundaries
- responsibility
- personal standards
- healthy relationships

The central idea is:

A person's past behavior does not have to become their permanent identity.

14. Diligence

Diligence examines the importance of continuing to do the work even when motivation disappears.

Recovery is not always dramatic.

Sometimes recovery is:

- showing up
- following through
- attending meetings
- completing responsibilities

- practicing coping skills
- apologizing
- trying again
- doing the boring things consistently

Diligence teaches that progress often comes from repetition.

15. The Disease of Addiction

This group examines addiction as more than simply a lack of willpower.

Discussion can include:

- brain changes
- reward systems
- conditioning
- cravings
- habits
- environmental triggers
- compulsive behavior
- decision-making
- consequences
- recovery behaviors

The purpose is to help participants understand the complexity of addiction without removing personal responsibility.

A useful distinction is:

Understanding why something happens is not the same as excusing what happened.

16. Recovery and the Mind

This group reflects my broader interest in psychology and philosophy.

Rather than asking only:

"How do I stop using?"

the group asks:

- Who am I becoming?
- What do I believe?
- Why do I react the way I do?
- What gives my life meaning?
- What kind of person do I want to become?
- What does a successful life actually look like?

This moves recovery toward personal development.

17. Recovery Through Questions

I have also developed large collections of AA and NA discussion questions.

The purpose is to prevent meetings from becoming repetitive.

Instead of simply giving participants answers, questions encourage them to examine their own experiences.

Examples include:

- What does recovery mean to you today?
- What has changed about you?
- What haven't you changed yet?
- What is the difference between sobriety and recovery?
- What does accountability mean?
- What does forgiveness mean?
- Can someone change without changing their environment?
- What happens when motivation disappears?
- What does healthy independence look like?
- What does it mean to become trustworthy?

18. Recovery and Music, Art, Literature, and Creativity

My groups also reflect my background in writing, music, art, literature, and creative education.

Creativity can provide another language for discussing recovery.

Participants can explore:

- songs that represent their experiences
- literature and characters
- drawing
- coloring
- storytelling
- poetry
- personal writing
- symbolism
- metaphors

Creative activities can give participants who struggle with traditional discussion another way to communicate.

19. Philosophy and Recovery

Philosophy provides another dimension to the groups.

Questions can include:

What is a good life?

What makes someone responsible for their choices?

Can people change?

What does freedom mean when addiction has taken away choices?

Is a person defined by their worst decision?

What does forgiveness actually accomplish?

What makes a person honorable?

These questions allow recovery participants to think beyond immediate problems and consider the larger meaning of their lives.

20. Recovery and Human Behavior

Across my groups, I repeatedly return to the idea that behavior has patterns.

People learn through:

- repetition
- consequences
- observation
- environment
- relationships
- reinforcement
- experience

This creates an important recovery principle:

If destructive behaviors can be learned, healthier behaviors can also be practiced and strengthened.

21. Recovery Without Religious Pressure

My approach also allows room for people who do not connect strongly with traditional religious language.

Recovery groups contain people with different beliefs and backgrounds.

A person can explore:

- spirituality
- psychology
- philosophy
- personal values
- human connection
- purpose
- responsibility
- science
- personal meaning

without requiring every participant to understand recovery in exactly the same way.

22. Meeting Communication and Cross-Talk

Another part of my work involves improving the quality of group communication.

Important concepts include:

- listening
- taking turns
- avoiding interruptions
- respecting different experiences
- avoiding unnecessary arguments
- not dominating discussion
- allowing others to speak
- keeping discussion constructive

The objective is to make the group a place where people can actually hear one another.

23. The Bigger Framework

Taken together, my groups form an educational approach that combines:

Recovery + Psychology + Neuroscience + CBT + Philosophy + Creativity + Literature + Communication + Personal Responsibility

The common thread is education through discussion.

I am interested in creating groups where people are not treated as passive recipients of information.

They become participants in the learning process.

My Overall Philosophy of Group Work

The central idea behind my work is simple:

Recovery should not become intellectually stagnant.

People can become tired of hearing the same discussions presented in the same way.

That does not mean the principles of recovery have stopped being important.

It means the way we teach those principles can continue to evolve.

A person can learn about addiction through neuroscience.

They can examine behavior through CBT.

They can explore identity through philosophy.

They can express emotion through art.

They can understand experiences through literature.

They can examine their habits through psychology.

They can discuss responsibility through real-life situations.

And they can discover their own answers through meaningful questions.

My goal in developing these groups has therefore been to create recovery education that makes people think.

Rather than simply asking people to repeat what they have already heard, the groups encourage them to ask:

Why?

How?

What happens next?

What can I change?

What have I learned?

Who am I becoming?

That is the foundation of my group-work approach: using education, conversation, creativity, psychology, neuroscience, and personal reflection to help people understand recovery as an ongoing process of learning and change.



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